

REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested. Claims 19-27 are canceled without prejudice or disclaimer. New claims 28-36 are added. Claims 1-18 and 28-36 are pending in the application.

Claim 1 has been amended to ensure the claimed method steps are properly interpreted as performed in the signaling network node. Since the preamble of claim 1 as originally filed cannot be disregarded in determining patentability, the amendments to claim 1 are merely cosmetic and do not affect claim scope.

Claims 12-17 are amended to correct an informality and to ensure proper antecedent basis.

Claims 1-2, 8-11, 17-20, and 26-27 standard rejected under 35 USC §103 in view of U.S. Patent No. 5,563, 930 to Pester in view of U.S. Patent No. 7,068,773 to McMann et al.. This rejection is respectfully traversed, as the rejection fails to establish a prima facie case of obviousness.

Claim Overview

Each of the independent claims specify generating a route management signaling message that includes inserting the affected point code associated with the affected signaling node having a prescribed condition into a third point code field (distinct from the originating point code field and the destination point code field), ***selecting a signaling link selection value based on the affected point code***, and inserting the signaling link selection value into a prescribed signaling link selection field in the route management signaling message. As illustrated in the specification (e.g., page 6, line 25 to page 7, line 5; page 8, lines 5-27), the signaling link selection value is selected based on applying prescribed operations to the specific affected point code (APC) value, illustrated in Figure 4 as retrieving user-selected cluster bits from the APC value (20a), retrieving user-selected member bits from the APC value (20b), retrieving the four least significant bits of the member bits (20c), or applying a prescribed mapping function "f"

Amendment filed November 28, 2007

Appln. No. 10/614,043

Page 10

AMENDMENTS TO THE DRAWINGS

The attached three (3) sheets of drawings replace the drawings as originally filed and include changes to Fig. 5. Sheet 1 includes Figures 1 and 2; Sheet 2 includes Figures 3 and 4; and Sheet 3 includes Figure 5. No changes have been made to Figures 1, 2, 3, or 4.

In Figure 5, previously omitted reference elements “No” and “Yes” have been added to identify the logical branches from step 66 to steps 70 and 68, respectively.

No other changes have been made to the formal drawings.

Attachment: Replacement Sheets (3)
Annotated Sheet of Fig. 5 Showing Changes

Amendment filed November 28, 2007

Appln. No. 10/614,043

Page 3

such that the SLS value equals f(APC) (20d) (see page 8, lines 9-18).

Hence, the claimed selection of a signaling link selection value based on the affected point code ensures that the claimed route management signaling message associated with a given affected point code can always utilize the same link based on having the same SLS value.

The claimed combination of inserting into a route management signaling message a point code field specifying the affected signaling node and distinct from the originating point code field and the destination point code field, and inserting into the route management signaling message a signaling link selection value having been selected based on the affected point code, is neither disclosed nor suggested in the applied prior art.

U.S. Patent No. 5,563,930 to Pester et al.

Pester et al. neither discloses nor suggests that the claimed *signaling network node* performs the claimed feature of selecting a signaling link selection value based on the affected point code, as argued on page 3 of the Official Action. In fact, the rejection fails to demonstrate that Pester et al. discloses or suggests that *any apparatus* performs the claimed feature of selecting a *signaling link selection value* based on the *affected point code* of the at least one affected signaling node.

To the contrary, Pester et al. utilizes a monitoring system that is external to the signaling network and that monitors network management messages transmitted between signaling network nodes in order to implement operations that are distinct from the signaling network operations executed by the signaling network nodes.

As illustrated in Figure 6, the monitoring system (including the line monitors 78, the Stage 1 unit 84, the Stage 2 unit 88, the Stage 3 unit 90, and the Stage 4 unit 92) are distinct from the Signal Transfer Point (STP) 76 and the Signaling Point (SP) that communicate via the SS7 link 82 (see, e.g., column 8, especially column 8, lines 16-18, 29-29-32 and 61-64, indicating the monitors can be physically located distinct from the STP and the SP). Further, Pester et al. specifically teaches at column 9, lines 22-23 that the stage 2 unit 88 is connected to the stage 3 unit via a local area network (LAN) or a dedicated circuit 98.

Hence, Pester et al. consistently describes (e.g., column 6, lines 5-25; column 8, line 16 to column 10, line 57; column 11, lines 38-67) that the monitoring system is distinct from the signaling nodes and signaling links of the SS7 network that are described at column 11, lines 1-14 as outputting a transfer controlled (TFC) message. Pester et al. specifically teaches that the monitors M1-4, and monitors M5 and M6 in Figure 9 are configured for monitoring the network management messages output onto the signaling links by the signaling network nodes:

Turning now to the handling of the situation using the system of the present invention, reference is still directed to FIG. 9. Monitors M1-4 on the B and D links between STP1, 2 and STP3, 4, and monitors M5 and M6 on the A links from the access tandem AT1 to STP1 and STP2 would have detected this TFC. The monitors are so constructed that every time a monitor sees a TFC it is designated a reactive MSU and **a reactive MSU alarm including the TFC is sent to Stage 2.** (See. FIG. 6).

(Col. 11, lines 38-45).

Consequently, Pester et al. neither discloses nor suggests that the claimed operation of selecting a signaling link selection value based on the affected point code is performed *within the signaling network node*, as claimed. For this reason alone the obviousness rejection should be withdrawn.

In addition, Pester et al. neither discloses nor suggests selecting a signaling link selection value based on the affected point code, as claimed. The broadest reasonable interpretation of the claimed “signaling link selection value” cannot be inconsistent with the specification, which identifies the selected SLS value as the value to be inserted into the SLS field in step 72 of Figure 5 for use in selecting among multiple available (i.e., active) links (see, e.g., page 6, lines 1-8; page 7, lines 15-18 and 20-23; page 10, lines 5-8). The broadest reasonable interpretation of the claimed “signaling link selection value” also cannot be inconsistent with the interpretation of those skilled in the art would reach, which also require the SLS value to select among multiple available or active links (see, e.g., U.S. Patent No. 7,068,773 to McCann et al. at col. 1, lines 51-54, specifying the SLS parameter is “used to select the appropriate signaling link for outbound

signaling messages").¹

Pester et al. does not disclose or suggest the claimed future of a signaling network node selecting a signaling link selection value based on the affected point code. To the contrary, Pester et al. teaches away from the claimed signaling link selection value by teaching that multiple signaling links are disabled and taken out of service in order to prevent an oscillating traffic scenario between interexchange carriers (ICs). The oscillating traffic scenario is based on the Stage 2 unit receiving TFC messages from the STP 3 (in Fig. 9) identifying the Service Point AT2 is congested on link A1, but failing to obtain matching TFCs from the STP 4 indicating AT2 is congested on link A2, as should normally occur if AT2 was congested (col. 12, lines 24-25). Hence, the abnormality of a single link congestion on link A1 but not A2 can create an oscillating traffic scenario based on IC involvement (column 12, lines 22-34).

Hence, Pester et al. describes at column 12, lines 35-41 that signaling links are disabled and taken out of service based on a direction by the Stage 2 unit. Further, the disabling of the link as described at column 12 is not based on the "affected point code", as claimed because the disabling of the link is based on the above-described abnormality of a single link congestion detected from the TFCs output from STP 3.

Hence, Pester et al. fails to disclose or suggest selecting a signaling link selection value for selection of an active link; to the contrary, Pester et al. teaches away from the claimed signaling link selection value by disabling a link and taking it out of service.

Further, the links that are disabled and taken out of service does not include the congested link (A1), but rather includes only the links that connect STP 3 across the interexchange carriers

¹"During patent examination, the pending claims must be 'given their broadest reasonable interpretation consistent with the specification.'" MPEP §2111 at 2100-46 (Rev. 3, Aug. 2005) (*quoting In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000)).

"The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach." MPEP §2111.01 at 2100-47 (Rev. 3, Aug. 2005) (citing *In re Cortright*, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999)).

to the other interexchange carrier signal transfer points STP1 and STP2. Pester et al. fails to disclose or suggest any use of the affected point code of the affected signaling node AT2 in performing any link selection, as claimed, but rather shuts down the links of STP3 to STP 1 and STP2 (due to the detected abnormality of only a single link congested).

For these reasons alone the obviousness rejection should be withdrawn.

U.S. Patent No. 7,068,773 to McCann et al.

McCann et al. fails to disclose or suggest any use of a signaling link selection value in a *route management signaling message*, as claimed. To the contrary, McCann et al. limits use of route management signaling messages to ISDN User Part (ISUP) messages, which are directed to setup and teardown of calls, and not generation of route management signaling messages (e.g., MTP3 route management messages).

Hence, the rejection fails to demonstrate that McCann et al. discloses inserting the affected point code into a third point code field, as asserted on page 3 of the Official Action. To the contrary, Figure 2 of McCann et al. discloses only that an ISUP message 200 includes an origination point code field 202, a destination point code field 204, and a signaling link selection field 206. There is no disclosure or suggestion, however, of a “third point code field”, let alone inserting an “affected point code” into the third point code field, as claimed.

For this reason alone the obviousness rejection should be withdrawn because the reference fails to teach the features as asserted in the rejection.

The Hypothetical Combination

The Examiner has failed to demonstrate that “there was an apparent reason to combine the known elements *in the fashion claimed.*” *KSR Int'l v. Teleflex, Inc.* No. 04-1350, 550 U.S. ___, Slip. op. at 14, 82 USPQ2d 1385, 1396 (U.S. Apr. 30, 2007). The rejection has failed to establish the analysis as required by the Supreme Court. Rather, the hypothetical combination teaches no more than “the predictable use of prior art elements according to their established functions,” *Id.*, with no disclosure or suggestion of the claimed features as a whole.

Amendment filed November 28, 2007

Appln. No. 10/614,043

Page 14

The hypothetical combination neither discloses nor suggests selecting a signaling link selection value based on the affected point code, and inserting the affected point code into a third point code field, as claimed. As described above, Pester et al. teaches away from the claimed feature by using the Stage 2 unit (distinct from the signaling network nodes) to disable the link based on monitoring the signaling messages between the switching transfer points STP 3 and STP 4: in fact, the Stage 2 unit disables the links between the switching transfer points STP 1 and STP 3, and STP 3 and STP 4, in order to remove STP 3 from service.

Hence, the hypothetical combination provides no disclosure or suggestion of *selecting* an available link based on the point code value of the affected signaling node; to the contrary, the hypothetical combination teaches (from Pester) that if the access tandem AT2 was in true congestion, both A links would be congestion, and that since the Stage 2 unit decides that single link congestion exists, the STP 3 is removed from service in order to prevent an oscillating traffic scenario (column 12, lines 22-42).

Moreover, the hypothetical combination of Pester et al. and McCann, considering both references in their entirety as required,² teaches away from the claimed feature of selecting a signaling sync link selection value ***based on the affected point code*** by relying instead on other features such as bit rotation, use of other CIC bits, and random selection (see, e.g., columns 5-8 and Figures 5-7 of McCann et al.).

Hence, the hypothetical combination fails to disclose or suggest the features, as claimed.

For these and other reasons, the obviousness rejection must be withdrawn.

The indication of allowable subject matter in claims 3-7, 12-16 and 21-25 is acknowledged with appreciation. It is believed these claims are allowable in view of the foregoing.

²“A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. MPEP §2141.02, page 2100-124 (Rev. 5, Aug. 2006) (*citing W.L. Gore & Assoc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984))(emphasis in original).

In view of the above, it is believed this application is in condition for allowance, and such a Notice is respectfully solicited.

To the extent necessary, Applicant petitions for an extension of time under 37 C.F.R. 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including any missing or insufficient fees under 37 C.F.R. 1.17(a), to Deposit Account No. 50-1130, under Order No. 95-499, and please credit any excess fees to such deposit account.

Respectfully submitted,



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Amendment filed November 28, 2007

Appln. No. 10/614,043

Page 16